Introduction

1.1 NOAA Office of National Marine Sanctuaries

The Office of National Marine Sanctuaries (ONMS) is located within the NOAA National Ocean Service (NOS) and serves as the trustee for a system of 13 national marine sanctuaries and one marine national monument, together encompassing more than 150,000 square miles of ocean and Great Lakes waters from the State of Washington to the Florida Keys, and from Lake Huron to American Samoa. ONMS manages the national marine sanctuaries through the authority of the National Marine Sanctuaries Act of 1972 (16 U.S.C. 1431 et seq.; www.sanctuaries.noaa.gov/about/legislation/; Appendix I).

Marine sanctuaries contain deep ocean gardens, coral reefs, whale migration corridors, deep-sea canyons, historically significant shipwrecks, and other underwater archaeological sites. They range in size from one-quarter square mile in Fagatele Bay, American Samoa, to more than 134,000 square miles at Papahānaumokuākea Marine National Monument located in the northwestern Hawaiian Archipelago.

The ONMS fosters public awareness of marine resources and maritime heritage through scientific research, monitoring, exploration, education, and outreach, and works closely with its many partners and the public to protect and manage sanctuaries. The ONMS is a world leader in marine management through the protection of living marine resources, environmental quality, and maritime heritage, while facilitating recreational and commercial activities to the extent that they are compatible with long-term protection.

Office of National Marine Sanctuaries' Mission: Identify, protect, conserve, and enhance the natural and maritime heritage resources, values, and qualities of the National Marine Sanctuary System for this and future generations throughout the nation.

1.2 Flower Garden Banks National Marine Sanctuary

The Flower Garden Banks have a short but rich history of exploration and discovery. It is reported that fishermen in the early 1900s named the area the Texas Flower Gardens after the brightly colored sponges, plants, and other marine life they could see through the clear water and sometimes snagged and brought to the surface. The first official documentation of the Banks did not occur until the 1930s. For the next 30 years, the Banks were occasionally included as part of scientific investigations of larger portions of the Gulf of Mexico. Despite these investigations and rumors of coral reefs from the fishing community, many scientists believed that any coral reefs located here must be dead, primarily because of the depth and water temperatures.

Then, in the 1960s, expeditions conducted by the Houston Museum of Natural Science, the U.S. Navy and volunteer divers settled the debate. Divers visited the reefs and brought back specimens and reports of living, healthy coral reefs that were stunning in their beauty. Exploration of the area soon began in earnest, as the Banks became a popular spot for both researchers and recreational divers.

As new technology allowed oil and gas production to move offshore into deeper water in the 1970s, concerns about detrimental impacts to the reefs increased. The Minerals Management Service established "No Activity Zones" around most of the Banks in the northern Gulf of Mexico. While these measures controlled impacts from oil- and gas-related activities, they did not cover activities such as diving, anchoring, fishing and shipping.

The recreational SCUBA dive community took action to address anchoring issues and formed the Gulf Reef Environmental Action Team (GREAT). This group raised funds and recruited volunteers to install mooring buoys. These and other divers also offered their services to researchers involved in characterizing and monitoring the banks. Nevertheless, continued anchoring by large ships and impacts from certain types of fishing made it apparent that additional formal protection was needed. It would take the combined efforts of recreational divers, researchers, federal agencies and advocates in Congress to get the Flower Garden Banks designated as a national marine sanctuary in 1992.

FGBNMS was designated a national marine sanctuary for the purposes of protecting and managing the conservation, ecological, recreational, research, education, and historic and aesthetic resources and qualities of the Flower Garden Banks (P.L. 102-251; 56 FR 63634). NOAA issued final regulations (Appendix II) and released a final management plan and environmental impact statement to implement this designation (58 FR 65664). Congress added the coral-sponge communities of Stetson Bank to the sanctuary in 1996 (P.L. 104-283) and extended the regulatory protections of the Flower Garden Banks to Stetson at that time. Comprehensive resource protection and management for FGBNMS is described in the site's 1991 management plan, which includes programs for science, education, outreach, regulation, enforcement, permitting, and coordination with other local, state, and federal agencies.

1.3 Building a New Management Plan

New challenges and opportunities emerge with time. For this reason, the National Marine Sanctuaries Act (http://www.sanctuaries.noaa.gov/about/legislation/; Appendix I) requires periodic updating of sanctuary management plans to re-evaluate site-specific goals and objectives and to develop management strategies and activities to ensure the sanctuary best protects its resources. Management plans are sanctuary-specific planning and management documents used by all national marine sanctuaries. They identify immediate, mid-range, and long-term challenges and opportunities, and develop a course for the future. A management plan describes resource protection, research, and education programs that guide sanctuary operations, specifies how a sanctuary should best protect its resources, and describes sanctuary regulations if appropriate.

The original FGBNMS management plan was written as part of the sanctuary designation process and published in the 1991 Final Management Plan and Final Environmental Impact Statement (http://flowergarden.noaa.gov/document_library/mgmtdocuments.html). Many of the activities in the original management plan have been accomplished. This document is the new FGBNMS Management Plan and its contents are the result of the sanctuary's first management plan review since its designation in 1992.

The management plan review process began in October 2006 with the publication of the Flower Garden Banks National Marine Sanctuary State of the Sanctuary Report (http://flowergarden.noaa.gov/document_library/mgmtdocuments.html) and the initiation of the public scoping period, which began with three public meetings (Houston/Galveston and Corpus Christi, Texas and New Orleans, Louisiana). The meetings were announced in the *Federal Register* and through various newspapers. More than 50 people attended the public scoping meetings and over 80 written comments were collected. Comment topics included artificial reefs, endangered species, enforcement, harvesting, oil and gas infrastructure, pollutant discharge, regional water quality, shipping and transportation, visitor use, wildlife interactions, boundary expansion, habitat connectivity, invasive species, education, global warming, hurricanes and administrative issues. Fishing, boundary expansion, and public outreach and education received more comments than other topics.

Throughout the winter of 2006, ONMS staff worked with the FGBNMS advisory council to characterize and prioritize resource protection issues for the revised management plan. At the February 2007 sanctuary advisory council meeting, six subcommittees were established to analyze specific priority issues and propose appropriate management strategies and activities needed to address each issue. Each subcommittee consisted of several council members and a supporting sanctuary staff member. Throughout 2007, several subcommittee and advisory council meetings and public workshops resulted in management recommendations to the sanctuary superintendent.



Sanctuary advisory council meeting in Galveston. Photo: FGBNMS

During the management plan review process, the sanctuary staff have provided regular briefings on the advisory council's recommended management plan strategies and activities to other federal agencies, including the Minerals Management Service Gulf of Mexico Regional Office, the NOAA

Fisheries Southeast Regional Office, and the Gulf of Mexico Regional Fishery Management Council. Briefings were also given to a number of non-governmental organizations, stakeholders, and interest groups.

Sanctuary staff used the recommendations from the sanctuary advisory council to help inform the action plans as part of the preparation of the draft management plan. This draft plan and environmental assessment are the result of that process. Formal public hearings and comments on the draft plan will further help staff revise the document into a final management plan, which, once approved, will outline the sanctuary's priorities for the next 5 years until the next review.

1.4 Sanctuary Goals and Objectives

Sanctuary goals and objectives are significant in that they, along with the purposes and policies of the NMSA, are the standard by which new sanctuary management actions and regulations are considered. Along with the comments collected during the public scoping process, the goals and objectives guide the development of the management plan's action plans. The strategies and activities that comprise these action plans should help attain the sanctuary goals and objectives.

In preparation for a review of this management plan, the sanctuary staff worked with the sanctuary advisory council to update the FGBNMS' goals and objectives and create a mission statement.

Flower Garden Banks National Marine Sanctuary's Mission: Identify, protect, conserve, and enhance the natural and cultural resources, values, and qualities of Flower Garden Banks National Marine Sanctuary and its regional environment for this and future generations.

Goal 1: Protect, maintain and, where appropriate, restore and enhance the resources and qualities of Flower Garden Banks National Marine Sanctuary and ecosystem that supports it.

- 1A: Prioritize resource protection in management decisions.
- 1B: Develop and integrate best practices, scientific information, and innovative management techniques.
- 1C: Reduce threats to sanctuary resources.
- 1D: Enhance compliance with and enforcement of sanctuary regulations.
- 1E: Improve ability to conduct emergency response and damage assessment.

Goal 2: Support, promote, and coordinate characterization, research, and monitoring of FGBNMS and the regional environment to inform conservation and protection.

- 2A: Improve characterization of the physical, chemical, biological and human environment of the sanctuary.
- 2B: Enhance research necessary for effective management and protection of sanctuary resources.
- 2C: Monitor and assess long-term environmental changes in the sanctuary.
- 2D: Evaluate environmental impacts that could result from changes in human activities or environmental conditions.

- *Goal 3*: Enhance and foster public awareness, understanding, appreciation, and stewardship of FGBNMS and the regional marine environment.
 - 3A: Broaden public awareness of the sanctuary and the regional marine environment by reaching out to new audiences.
 - 3B: Improve understanding of the sanctuary and its resource protection issues through the interpretation and dissemination of information on sanctuary science and management.
 - 3C: Increase public appreciation, support and stewardship of the sanctuary, including the active participation of volunteers.
- Goal 4: Manage and facilitate multiple sustainable uses of FGBNMS compatible with the primary purpose of resource protection.
 - 4A: Minimize potential user conflicts.
 - 4B: Explore innovative management techniques, such as marine zoning, to achieve the mission of protecting sanctuary resources.
 - 4C: Improve understanding of human activities and their potential impacts, direct, indirect and cumulative, to sanctuary resources and the regional environment.
- Goal 5: Promote and coordinate partnerships with stakeholders, agencies, and organizations.
 - 5A: Coordinate the development and implementation of policies, regulations, procedures, and permitting activities.
 - 5B: Enhance opportunities for stakeholder and public involvement in sanctuary activities, especially through the sanctuary advisory council process.
 - 5C: Facilitate the exchange of scientific information, technical knowledge, and innovative management strategies.
 - 5D: Improve collaboration and coordination with partners to increase public awareness, understanding and stewardship of the sanctuary.
- Goal 6: Promote ecosystem-based management of the FGBNMS regional environment.
 - 6A: Improve understanding of how sanctuary resources are connected to other areas through ecosystem processes.
 - 6B: Improve understanding of other threatened areas in the FGBNMS regional environment that may be nationally significant.
 - 6C: Evaluate and implement management actions that enhance ecosystem-based management.